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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/367,396	08/13/1999	PETER JOHN MOTTISHAW	30980016US	4303

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EXAMINER

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ART UNIT PAPER NUMBER

2662

DATE MAILED: 01/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/367,396

Applicant(s)

MOTTISHAW ET AL.

Examiner

David Odland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 33 and 34 is/are allowed.
- 6) ☒ Claim(s) 1,4-21,26 and 30-32 is/are rejected.
- 7) ☒ Claim(s) 2,3,13,22-25 and 27-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The following is a response to the amendments filed on 11/20/2002.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 9, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 10 recites "...said further information..." in line 2. There is a lack of antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1,5,11,12,15,19 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent number 5,533,007 to Orita et al., hereafter referred to as Orita in view of U.S. Patent number 4,730,313 to Stephenson et al., hereafter referred to as Stephenson.

Referring to claim 1, Orita discloses of a method of monitoring an ISDN link (an ISDN monitoring system (see abstract)), comprising the steps of monitoring at a first location subscriber signaling messages on an ISDN D channel to derive first monitoring data (a monitoring device at a location monitors data received from the D channel of the ISDN link (see item 28 of figure 1 and column 4 lines 16-31)), monitoring at said first location telecommunications traffic traversing ISDN B channels associated with said ISDN D channel to derive second monitoring data (the monitoring device at the same location is then used to monitor data received from the B channels (see item 28 of figure 1 and column 4 lines 51-62)) and correlating said first and second monitoring data (the channel of a particular subscriber are monitored, hence there is a correlation between the D channel and its associated B channels (see column 6 lines 1-6 and lines 40-42)).

Orita does not disclose correlating the first and second data by selecting some of the second data and performing a predetermined action. However, Stephenson discloses a method for providing B channel diagnostics, which includes correlating said first and second monitoring data by selecting some of said second monitoring data in accordance with said first monitoring data (a B channel is examined and thus selected, out of a plurality of B channels (BRI ISDN), based on its corresponding D channel, to which an error rate is determined (see abstract and column 1)), and taking a predetermined action in accordance with said selected second monitoring data (the error rate associated with the B channel is determined based on the error rate detected in its

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corresponding D-channel signaling (see abstract and column 1)). It would have been obvious to one skilled in the art at the time of the invention to perform a predetermined action such as error rate detection, as taught in Stephenson, in the system of Orita because doing so would make the system more reliable.

Referring to claim 11, Orita discloses the method of monitoring an ISDN link as discussed above. Furthermore, Orita discloses that the monitoring for at least one location is passive in nature (the ISDN channel is monitored without stopping the switching services, hence non-intrusive monitoring (see column 1 lines 55-60)).

Referring to claim 12, Orita discloses the method of monitoring an ISDN link as discussed above. Orita does not disclose that the correlation is performed to provide service records. However, it would have been obvious to one skilled in the art at the time of the invention to perform the process of correlation to provide service records, in the system of Orita, because such a process would help to efficiently maintain and monitor the system, thereby increasing its overall reliability.

Referring to claim 31, Orita discloses the ISDN monitoring method as discussed above. Orita does not disclose that the first monitoring data is derived from a plurality of D channels. However, it is well known in the art that ISDN commonly uses multiple D channels, namely for back-up D-Channel signaling purposes, in case one D channel becomes unavailable. It would have been obvious to one skilled in the art at the time of the invention to derive the first monitored data as disclosed by Orita, but from a plurality of D channels because using a plurality of D channels in an ISDN network is commonly performed.

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Referring to claim 5, Orita discloses of an apparatus for monitoring an ISDN link (an ISDN monitoring system (see abstract)), comprising first equipment at a first location for monitoring subscriber signaling messages on an ISDN D channel to derive first monitoring data (a monitoring device at a location monitors data received from the D channel of the ISDN link (see item 28 of figure 1 and column 4 lines 16-31)), equipment at said first location for monitoring telecommunications traffic traversing ISDN B channels associated with said ISDN D channel to derive second monitoring data (the monitoring device at the same location is then used to monitor data received from the B channels that correspond to the associated D channel signaling (see item 28 of figure 1 and column 4 lines 51-62)), and a correlation apparatus coupled the equipment to receive and correlate said first and second monitoring data (the device is used to monitor the channel of a particular subscriber, hence there is a correlation between the D channel and its associated B channels (see column 6 lines 1-6 and lines 40-42)).

Orita does not disclose that there is a second, separate, piece of equipment at the same location for monitoring the B channels. Instead, Orita discloses that the D and B channels are monitored by the same piece of equipment, as discussed above. However, it would have been obvious to one skilled in the art at the time of the invention to separate the monitoring device, as taught by Orita, into separate pieces because doing so would merely be a matter of design choice.

Furthermore, Orita does not disclose correlating the first and second data by selecting some of the second data and performing a predetermined action. However, Stephenson discloses a method for providing B channel diagnostics, which includes correlating said first and second monitoring data by selecting some of said second monitoring data in accordance with said first monitoring data (a B channel is examined and thus selected, out of a plurality of B channels (BRI

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ISDN), based on its corresponding D channel, to which an error rate is determined (see abstract and column 1)), and taking a predetermined action in accordance with said selected second monitoring data (the error rate associated with the B channel is determined based on the error rate detected in its corresponding D-channel signaling (see abstract and column 1)). It would have been obvious to one skilled in the art at the time of the invention to perform a predetermined action such as error rate detection, as taught in Stephenson, in the system of Orita because doing so would make the system more reliable.

Referring to claim 15, Orita discloses the method of monitoring an ISDN link as discussed above. Furthermore, Orita discloses that the monitoring for at least one location is passive in nature (the ISDN channel is monitored without stopping the switching services, hence non-intrusive monitoring (see column 1 lines 55-60)).

Referring to claim 19, Orita discloses the method of monitoring an ISDN link as discussed above. Orita does not disclose that the correlation is performed to provide service records. However, it would have been obvious to one skilled in the art at the time of the invention to perform the process of correlation to provide service records, in the system of Orita, because such a process would help to efficiently maintain and monitor the system, thereby increasing its overall reliability.

6. Claims 4,6,14,16,18,20,26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable Orita.

Referring to claims 4 and 6, Orita discloses of an apparatus for monitoring an ISDN link (an ISDN monitoring system (see abstract)), comprising first equipment for monitoring subscriber signaling messages on an ISDN D channel to derive first monitoring data (a

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monitoring device at a location monitors data received from the D channel of the ISDN link (see item 28 of figure 1 and column 4 lines 16-31)), equipment for monitoring additional signaling messages on a signaling link in a telecommunications network coupled to said ISDN link to derive second monitoring data (the signaling from not only the subscriber is monitored but also signaling related to the networks in which the subscribers information traverses such as the line connection network, LC-NW, and the call processing network, CPR-NW (see items 16, 24 and 28 of figure 1 and column 4 lines 51-62)), and correlation apparatus coupled to the equipment to receive and correlate said first and second monitoring data (the device is used to monitor the signaling channel of a particular subscriber, whose information traverses through multiple networks, hence there is a correlation between the subscribers D channel and the associated signaling of the other networks (see column 6 lines 1-6 and lines 40-42)). Orita does not disclose that there is a second, separate, piece of equipment at the same location for monitoring the B channels. Instead, Orita discloses that the D and B channels are monitored by the same piece of equipment, as discussed above. However, it would have been obvious to one skilled in the art at the time of the invention to separate the monitoring device, as taught by Orita, into separate pieces because doing so would merely be a matter of design choice.

Referring to claims 14 and 16, Orita discloses the method of monitoring an ISDN link as discussed above, in the rejections of claims 4 and 6, respectively. Furthermore, Orita discloses that the monitoring for at least one location is passive in nature (the ISDN channel is monitored without stopping the switching services, hence non-intrusive monitoring (see column 1 lines 55-60)).

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Referring to claims 18 and 20, Orita discloses the method of monitoring an ISDN link as discussed above, in the rejections of claims 4 and 6, respectively. Orita does not disclose that the correlation is performed to provide service records. However, it would have been obvious to one skilled in the art at the time of the invention to perform the process of correlation to provide service records, in the system of Orita, because such a process would help to efficiently maintain and monitor the system, thereby increasing its overall reliability.

Referring to claims 26 and 30, Orita discloses the method of monitoring an ISDN link as discussed above, in the rejections of claims 4 and 6, respectively. Orita does not disclose that signaling messages are SS7 messages. However, it would have been obvious to one skilled in the art at the time of the invention to use SS7 messages in the system of Orita because such messages are part of a widely used well-established signaling protocol.

7. Claims 7,8-10,17,21 and 32, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent number 5,592,530 to Brockman et al., hereafter referred to as Brockman.

Referring to claim 7, Brockman discloses a method of monitoring a telecommunications system having transmission channels and an associated signaling channel (a telecommunications system comprising transmission channels and an associated SS7 network (see abstract and figure 1)), comprising the steps of: monitoring at a first location signaling messages on the signaling channel to derive first monitoring data (a first monitor captures selected telephone switching messages on the SS7 network (see abstract and column 1)); selecting a transmission channel identified by reference to information contained in said first monitoring data (a particular call related to the captures signaling message is selected to be monitored (see abstract and column

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1)); monitoring telecommunications traffic traversing the selected transmission channel to derive second monitoring data (a monitor captures messages pertaining to the particular call associated with the captured signaling messages (see abstract and column 1)); and extracting information that is traversing the selected transmission channel by reference to information contained in said second monitoring data (the particular data call is captured and thus inherently it is extracted and since it is in the selected channel of transmission the call is inherently referenced by the channel (see abstract and column 1)).

Brockman does not disclose that the monitors are at the same location. However, it would have been obvious to one skilled in the art at the time of the invention to implement the two location/two monitor system disclosed in Brockman, in a single location because doing so would make the system more compact and easier to install since its in one location.

Referring to claim 8, Brockman discloses the monitoring method as discussed above. Brockman does not disclose that the transmission channel is an ISDN B channel or that the signaling channel is an ISDN D channel. However, ISDN D and B channel are widely used well-established standards for use in ISDN digital communications networks. Therefore, it would have been obvious to one skilled in the art at the time of the invention to perform the method disclosed in Brockman in conjunction with ISDN B and D channels.

Referring to claim 9, Brockman discloses the monitoring method as discussed above. Furthermore, Brockman discloses that the transmission channel is carried by a telephone transmission link (the transmission links make up telephone calls (see abstract and figure 1)) and the signaling channel is carried by a common channel signaling link, such as SS7 (the signaling is carried by an SS7 signaling link (see abstract and figure 1)).

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Referring to claim 10, Brockman discloses the monitoring method as discussed above. Brockman does not disclose that the information comprises DTMF signals. However, DTMF signals are widely used well-established standards for telephone call set-up in communications networks. Therefore, it would have been obvious to one skilled in the art at the time of the invention to have the information in the method disclosed in Brockman comprise DTMF signals.

Referring to claim 17 Brockman discloses the monitoring method as discussed above. Furthermore, Brockman discloses that the monitoring is done in a passive nature (the real-time calls are monitored by the monitoring units and intrusive and therefore passive in nature (see abstract and column 2)).

Referring to claim 21, Brockman discloses the method of monitoring as discussed above. Brockman does not disclose that the correlation is performed to provide service records. However, it would have been obvious to one skilled in the art at the time of the invention to perform the correlation for service records because such records are well known and commonly used in communications networks for maintenance purposes.

Referring to claim 32, Brockman disclose the method of monitoring as discussed above. Brockman does not disclose that the transmission and signaling channels are carried in an ATM system. However, it would have been obvious to one skilled in the art at the time of the invention to use an ATM system in the system of Orita because such a system is a widely used well-established communications protocol.

Allowable Subject Matter

8. Claims 33 and 34 are allowed.

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9. Claims 2,3,13,25,22-24 and 27-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments with respect to claims 1,11,5,6,15 and 16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

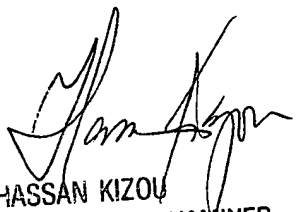
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland, who can be reached at (703) 305-3231 on Monday – Friday during the hours of 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who can be reached at (703) 305-4750.

deo

January 22, 2003


HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
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